

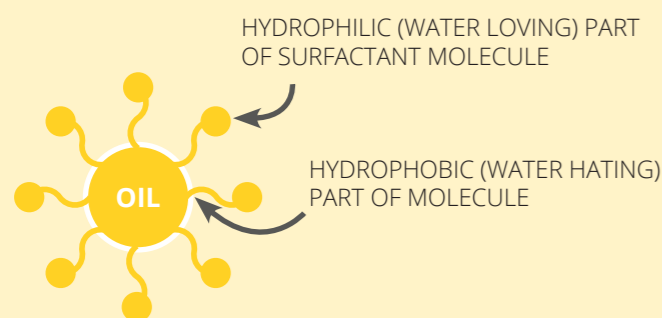
EVERYDAY COMPOUNDS: SODIUM LAURYL SULFATE

SODIUM LAURYL SULFATE IS A SURFACTANT FOUND IN MANY CLEANING & HYGIENE PRODUCTS, INCLUDING TOOTHPASTE, SHAMPOO, SHAVING CREAM & BUBBLE BATHS

AS A FOAMING AGENT

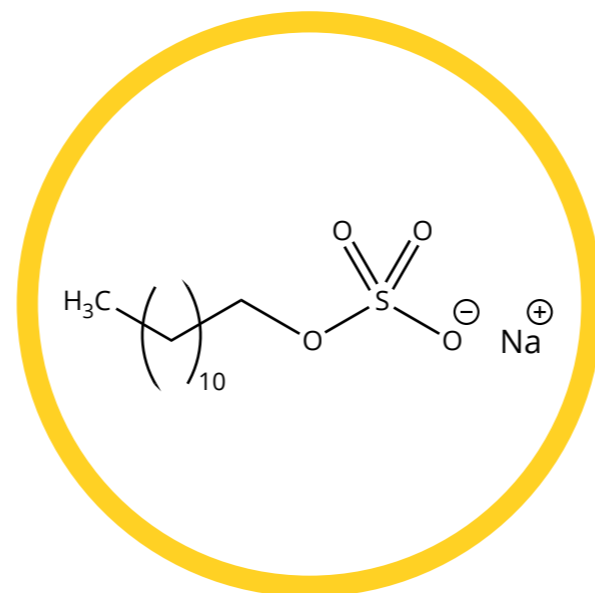
Sodium lauryl sulfate is a surfactant, meaning the molecule contains a water soluble portion and a water insoluble portion. The molecules attach themselves to oil and grease, and suspend them in water, allowing them to be removed. It also lowers the surface tension of water, acting as a foaming agent and allowing bubbles to form. A similar compound, sodium laureth sulfate, is sometimes used as an alternative.

HOW SURFACTANTS SUSPEND OIL & DIRT IN WATER



AS A PESTICIDE

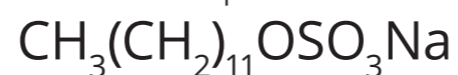
Sodium lauryl sulfate is the active compound in some insecticides, particularly those targeting fruit flies. It can also be used in flea and tick shampoo for cats and dogs.



SODIUM LAURYL SULFATE

Sodium dodecyl sulfate

White powder



SHAMPOO

TOOTHPASTE



IN TOOTHPASTES

Sodium lauryl sulfate is added to toothpastes as a foaming agent; however, it additionally interacts with receptors in the mouth that allow us to perceive tastes. Particularly, it suppresses sweet receptors, and breaks down phospholipids that act as inhibitors on bitter receptors. This is one of the suggested reasons why drinking orange juice after brushing your teeth tastes bad, as it dulls the sweet taste and promotes the bitter.



AS A POTENTIAL SHARK REPELLENT

A 2001 study confirmed that sodium lauryl sulfate acts as a shark repellent, due to hydrophobic properties, but is not potent enough for use as a non-directional cloud type repellent. However, it could be used as a directional, squirt-based repellent.